

Bay Area Nursing Resource Center

Centralized Clinical
Placement System
(C. C. P. S.)

Operating Manual
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I. Project Description

The Centralized Clinical Placement System (CCPS) is a non-profit internet-based service accessible through <http://www.BayAreaNRC.org>, or directly at <http://ccps.foundationccc.org>. This service is provided to schools and clinical agencies in order to optimize and expand nursing student clinical placements within the nine-county San Francisco Bay Area, resulting in:

- Improved utilization of existing clinical placement capacity and increased access to new clinical sites,
- Improved and streamlined processes for matching nursing students with clinical placements,
- Increased alignment and collaboration between clinical agencies and schools to ensure a flexible system that is able to quickly change to meet the ever-changing workforce needs of the healthcare system, and
- Increased capacity of Bay Area schools of nursing, which will result in an increased number of new nurses.

CCPS is accessed by clinical placement coordinators at schools and agencies to input placement availability, placement requests, and then to match the requests. It serves as a single location for requesting placements, approving placements and printing schedules. The service will initially be used within the nine Bay Area counties, but can be expanded or scaled to accommodate a broader geography and/or other allied health professionals.

CCPS is one component of a larger web-based suite of services called the Bay Area Nursing Resource Center – three “shared services” that are part of the Betty Irene Moore Nursing Initiative through the Gordon and Betty Moore Foundation. The other two services are the Centralized Faculty Resource Center (CFRC) and Regional Simulation Centers (RSC).

II. Project Purpose and Values

By centralizing and standardizing the clinical placement process, untapped capacity at clinical agencies will be identified and made available to schools. This additional capacity can be more readily seen through the CCPS, and filled by nursing student cohorts from schools, thereby creating another avenue for increasing capacity in schools, and ultimately addressing the current nursing shortage.

The idea for the CCPS is an outgrowth of the California Institute for Nursing & Health Care’s (CINHC) Education Service Partnership Initiative (E/SPI) that was funded by the California Health Care Foundation in partnership with the

Hospital Council of Northern & Central California. E/SPI was modeled after an initiative sponsored by the Hospital Association of Southern California, whose goal was to increase local nursing school enrollments. In October 2003, E/SPI surveyed Bay Area Chief Nursing Officers and Nursing School Deans. The survey found that 62% of Chief Nursing Officer respondents felt that they could absorb more students for clinical rotations in their hospitals. A sample survey conducted by the Hospital Council of schools and hospitals in San Francisco County yielded similar results, indicating that hospitals could absorb more students and that students of nursing needed more clinical placement sites to meet the increased enrollment demands.

In April 2004, a concept paper for the CCPS was submitted to the Gordon and Betty Moore Foundation. The concept paper was approved and a proposal was developed. The proposal was submitted in August 2004 and the grant was awarded to the Foundation for California Community Colleges (FCCC). After the grant approval, an operating committee was formed to oversee the development of the CCPS.

The grant supporting this project is administered through the FCCC in collaboration with CINHC. FCCC serves as the fiscal sponsor and the developer for the web-based system to support the shared services and has the overall responsibility for the management of the grant and coordinates daily operations. FCCC also serves as the “home” for these services. CINHC has the responsibility of ensuring that the stakeholder group is contacted, informed, trained and uses the CCPS and serves as the content and stakeholder partner. The stakeholder group, or Operating Committee, includes representatives from schools and clinical agencies, and provides guidance on system requirements, usability and acceptance within the community.

The CCPS shall serve the nine-county San Francisco Bay Area nursing community based on the following values:

1. **Trust** - Establish and maintain the highest levels of system integrity.
2. **Mutual Respect** - Treat everyone as a valued colleague.
3. **Community** - Uphold a sense of “oneness” and cooperation with all stakeholders.
4. **Educational Excellence** - Ensure all students are enabled to realize their potential.
5. **Open Communication** - Commitment to listen and share ideas.

III. Definition of Users and Rules

- a. **Who:** The primary users of the CCPS are clinical placement coordinators, at nursing schools and clinical agencies, and system administrators. System administrators include the Content Coordinator, Online Coordinator, Program Directors and the Program Leader (see Section IX, Roles, for description). Secondary users are visitors, who will have read-only access to schedule information. The visitor group consists mostly of clinical agency shift leads/nurse managers, school faculty members, students and interested members of the nursing community. All users can access the system from any computer with internet service. Without a login and password, visitors will only be able to browse the system and access general information.

A list of participating schools and clinical agencies is available on the home page under "Links." More detailed information about each location is available within the website under:

- Schools: under "List Schools"
- Clinical Agencies: under "List Clinical Agencies"

- b. **Eligibility:** Eligibility to participate as a user is at the discretion of the system administrators (defined above in Section III a). Access will be granted as part of a facility's agreement to utilize the CCPS. At that time, authorized user name(s) are provided by the participating school or clinical agency. If there is a request from a non-authorized person to access the CCPS, the system administrators will work with the affiliated facility to determine if access should be granted. School and clinical agency coordinators, once on the system, do have the ability to assign other users within their facilities. Access may be granted by either the system administrators or the coordinator(s) within a facility.
- c. **Rules:** At the time that a facility is given access to the site, training will be scheduled for the new user. This training may be conducted at the facility's site, online or as part of a large group training session. Users are required to complete training prior to utilizing the system for clinical placements, which may be in the form of self-teaching using online help resources such as the User Manual, FAQs and training videos.

a. **General:**

- i. Existing clinical placements shall be honored at the initiation of the CCPS process unless previously communicated by the clinical agencies to impacted schools.

- ii. Clinical placements among users shall not take place outside of the CCPS process.
- iii. Both the Agency and the School shall appoint at least one coordinator, with responsibility for entering information in the system and coordinating placements.
- iv. Schools and Agencies shall agree to adhere to a CCPS Master Calendar and provide all relevant data for the purposes of submitting a clinical placement request. The Master Calendar will include timing for entering data, such as when all data needs to be in the system, when schools make their proposals, when agencies accept or decline requests and when any and all conflicts must be resolved. The calendar will be created by the Content Coordinator and will be posted on the CCPS home page.
- v. All users shall agree that students receiving placements shall be selected without discrimination on account of race, sex, color, religion, national origin, age, physical or mental handicap or veteran's status.

b. **Schools:**

- i. The School shall have the right to select the appropriate clinical placements, based on ability to meet course objectives, etc.
- ii. If a School does not plan to use a clinical placement for a specified period of time, they shall relinquish the assignment to another school with the stipulation that at the end of the specified period, the relinquishing School shall resume the placement. In the event that a School cancels an established placement due to an uncontrollable event, the School shall retain the right to reclaim the use of the previously assigned unit(s) during the next CCPS scheduling cycle.
- iii. Schools shall confirm all faculty and students being presented to Clinical Agencies have not been subject to, or are currently not subject to, exclusion from participation in any federal or state health care programs.
- iv. Schools shall assure that all students presented for clinical placements have satisfied all necessary requirements established by the Clinical Agency and legal authorities.

c. **Clinical Agencies:**

- i. Clinical Agencies shall have the right (after consultation with the School) to refuse to accept for further clinical experience any of the School's students, who in the faculty/Agency's judgment are not satisfactorily fulfilling the conditions established for the clinical placement.

- ii. The Clinical Agency has the final word on accepting the school for a particular clinical placement.
 - iii. The Clinical Agency shall have the right to revise the master schedule when the Clinical Agency reasonably believes that such experience will materially interfere with the effective operations of the facility and/or patient care. Significant changes to the master schedule shall be communicated to the CCPS Content Coordinator in the event that conflict resolution assistance is required. If a placement is cancelled, the Agency will work with the School and Content Coordinator to assist in locating alternate placement opportunities for the nursing student cohort.
- d. **Sign-up procedures:** In order to use the CCPS, a user must obtain a login and password. Logins and passwords are provided by Customer Support (or by a facility's lead coordinator for existing locations). In order to request a login and password, Customer Support must be contacted, either via e-mail or phone. Contact information is available on the home page of the CCPS. Once a user has been granted access, Customer Support will arrange training, provide guidelines for using the system and will be available to answer questions.

IV. Outreach Activities

Outreach activities are primarily provided by the California Institute for Nursing & Healthcare.

- a. **Newsletters:** A newsletter titled *ReSource* is distributed to all users bi-monthly. The newsletter provides updates on the CCPS and other projects, contact information and announcements. The newsletter is an effective tool to communicate with the larger healthcare community and to increase awareness and interest in all of the Nursing Resource Center projects. Visitors to the Bay Area Nursing Resource Center website can view past newsletters by clicking on the "Newsletters" link.
- b. **Site Visits:** The project team meets with individuals from clinical agencies and schools of nursing, as well as health systems and networks, to familiarize them with the CCPS and its benefits. At these meetings, attendees are presented with an overview of the CCPS, shown demonstrations of the system, and are asked to enlist their support.
- c. **Nursing Associations:** The team also attends various nursing meetings including those sponsored by the Regional Health Occupations Resource

Centers (RHORC), Association of California Nurse Leaders and the Association of Northern California Health Care Recruiters.

- d. **Ensuring Commitment:** In the course of outreach, the project team presents an overview of the CCPS, addresses questions and gains commitment and buy-in for the use of the CCPS. The goal is to ensure that all clinical agencies and schools of nursing in the nine Bay Area counties are aware of the benefits of the CCPS and will use the system as their primary means of clinical placement. As each school of nursing and clinical agency agrees to use the CCPS, they are given access information and asked to provide documentation of their commitment to utilize the CCPS as their primary means of placing nursing students into clinical placements. This is done via standard e-mail, with an electronic signature from an authorized decision-maker at that facility.
- e. **Regular Meetings:** An Executive Committee meets weekly to share the status of current projects and discuss issues regarding the Bay Area NRC and its services. In addition, the CCPS stakeholder group, or Operating Committee, convenes as needed. The teams discuss any ongoing or new issues, changes needed, planning cycle coordination and recommendations for future upgrades.

V. Customer Support Desk

Customer support is available as a service to all CCPS users via phone or e-mail Monday through Friday from 8:00am – 5:00pm PST. Contact information is posted on the home page of the CCPS. The customer support function is housed at the FCCC offices in Sacramento and is managed by the NRC Online Coordinator. Support to users is offered in the following areas:

- New user set-up requests
- Access issues
- Requests for User Manuals and/or Policies & Procedures
- Training and online assistance
- Requests for other on boarding support
- Communication of software updates
- Technical problems or software errors
- Discussion and collection of enhancement or design recommendations

The Customer Support Desk responds to inquiries within 24 hours during the work week and on the first day of the work week for all messages received during the weekend.

VI. Schedule Conflict Resolution

On occasion, more than one school may request the same clinical placement or one that overlaps with another school's request. In these instances, the following procedures will be followed:

- a. If the clinical agency receives conflicting schedule requests, the clinical agency coordinator will investigate within his/her facility to see if there is a similar unit that may be able to handle the cohort(s) or if another feasible option is available.
- b. The clinical agency will present the alternative option to the school for consideration and approval.
- c. If the option is unacceptable to the school or if the clinical agency cannot determine reasonable options within its facility, the agency coordinator will contact the Content Coordinator and submit a formal request for assistance. The formal request can be made via e-mail or phone, and will be logged by the Content Coordinator. The request will include information about the schools involved and the requested units.
- d. The Content Coordinator will provide neutral, third-party facilitation, and mediation if required, to resolve the issue. A meeting will be held with all parties involved, each party's goals will be stated, and the Content Coordinator will work with the group to explore options and present recommendations. Maintaining existing relationships and placements will be the first criterion assessed, and will supersede other requests, unless otherwise specified by the clinical agency.
- e. There will be a recommended solution as an outcome of the facilitation meeting. This recommended solution will be implemented unless/until the parties involved with the schedule conflict find a more desirable outcome.
- f. The decision reached by the parties involved will be reflected in the CCPS, so that the system will no longer show the schedule conflict.

VII. Technical Standards

The reliability and quality assurance of the CCPS are dependent upon four major elements, which are listed separately below:

- a. **Hardware Configuration:** The CCPS is supported by two separate servers. The production server was purchased specifically for the long-term support of the CCPS, and it supports the activities of the bulk of the users. The technical specification for this server was developed primarily to ensure reliability and high performance. Key features that achieve this

are the redundant array of hard drives that store the working copy of the code and user data as well as the back up systems used to create copies of this critical data. This specification was developed initially by the CCPS development team and was reviewed by two senior computer systems managers.

During the development and testing phases of the CCPS, a second, smaller development server is used to post and test new CCPS features before they are presented to the Operating Committee. Users of the development server include a subset of the Executive Committee.

- b. **Hardware and Data Back up:** The overall CCPS computer system, including hardware, software and user data, is protected against physical theft and tampering, power interruptions and power spikes, unauthorized access and use by “hackers,” and other losses of data or information content.

Security protection is accomplished in several ways. The system is housed in a dedicated and locked server room in the offices of the California Community College Chancellor’s Office (CCCCO) and is subject to daily oversight by the full-time information technology (I.T.) staff. The system is protected from power failure or spikes by an uninterruptible power supply and the entire building has a new power transformer that was installed in mid 2004. The servers support only NRC-related activities, which reduces the risk of access by unauthorized users. Finally, access to the CCPS is restricted by server controls established by the I.T. staff and by the user login credentials required by the development team.

System data is backed up on a regular schedule that is consistent with industry standards. This includes a complete back up to tape of all CCPS software and user data once per week. To supplement this, incremental tape back ups are run daily. Thus, data can be restored to within a day of any sort of system failure. In addition, data is also copied automatically to a remote hard disk on another machine as an added precaution. These back up procedures have been tested and work as intended.

- c. **Information Access and Updates:** Users access the CCPS using an internet browser. This simplifies the security features that are needed (described above) while ensuring a simple and familiar platform for the users. The development team creates all new code and CCPS content on remote computers. After being developed and initially tested and revised, the code is uploaded to the CCPS system. This approach minimizes the

frequency of system uploads, which in itself helps ensure reliability and system security.

- d. **Written Documentation and Quality Assurance:** The approaches outlined above follow typical best practices used in the I.T. industry. Likewise, a similar systematic approach was used in the development of the CCPS software. Most of the documentation of these activities is in the form of email among the team. Separate, dedicated record keeping is not deemed necessary with a few key exceptions. The technical specification, including hardware and purchased system software, is included in the CCPS project files. Also, there is a hand-written CCPS back up plan included in notes taken by the development team during the final setup of the production and development servers. Finally, a hand-written back up log is kept by the I.T. staff when back up tapes are changed.

VIII. Feedback and Evaluation

- a. **Feedback Tool:** The CCPS feedback tool provides a central location for entering comments, issues and help tickets associated with the CCPS. This tool is the primary mechanism for submitting user feedback, issues and requested changes. The feedback tool can be accessed online at the Bay Area NRC Communication Center site at: <http://moore.ccps.intranets.com>. The site requires the use of a login and password which is assigned by the system administrators. Feedback about the system, questions and problems are logged by date and issue. During testing, the system administrators review the feedback tool daily to log test results and answer developer questions. This system is a way to document software development concerns and is not meant to take the place of telephone access to the Customer Support Desk with daily online usage problems.
- b. **Evaluation:** Participating schools and agencies shall agree to provide the CCPS Content and/or Online Coordinator with requested feedback on matters relating to the CCPS in a timely manner. It is understood that such requests for feedback are made in an effort to continuously improve the CCPS process.

IX. Roles

The development and implementation of the CCPS is the responsibility of the FCCC in collaboration with the CINHC, along with other consultants. The following section provides a description of the primary roles.

- a. **FCCC Program Director:** This individual shall develop, coordinate, and manage the shared services components (e.g., CCPS, CFRC, RSC) for FCCC; provide budget oversight regarding all matters pertaining to the CCPS process; create and manage the annual CCPS operating budget; create and manage a CCPS fee schedule for all users; coordinate CCPS communications with the Gordon and Betty Moore Foundation, CINHC, and participants; and participate in marketing and outreach activities.
- b. **CINHC Program Leader:** This individual shall provide overall leadership for directing and providing all activities of the shared services that CINHC is accountable for, including stakeholder contact and outreach activities.
- c. **CINHC Program Director:** This individual shall assist the CINHC Program Leader in administering the aspects of the shared services that CINHC is accountable for, including collaborating with the FCCC Program Director to ensure seamless implementation of the projects, with GBMF, schools of nursing and clinical agencies.
- d. **Content Coordinator:** This individual shall be housed under the CINHC and will:
 1. Work with the Operating Committee and Online Coordinator to develop data fields and templates for the online system.
 2. Coordinate activities of the Operating Committee.
 3. Work with the Online Coordinators to develop and maintain a CCPS User Manual.
 4. Conduct CCPS orientation for users and interested organizations.
 5. Coordinate CCPS meetings, milestones and activities with clinical agencies, hospitals, and school coordinators.
 6. Provide conflict resolution for scheduling conflicts.
 7. Work collaboratively with the CINHC Content Coordinator.
 8. Report to the CINHC Executive Director, who serves as Program Leader, or her designee.

- e. **Online Coordinator:** This individual shall be housed under the FCCC and will:
 - 1. Provide daily customer support to users of the CCPS regarding access issues, new user setup requests, and troubleshooting.
 - 2. Provide user manual and procedural documentation to users as requested.
 - 3. Work with the Content Coordinator to develop and maintain a CCPS User Manual.
 - 4. Be responsible for overall supervision and coordination of CCPS development activities and the achievement of CCPS technical goals and timelines, including usability and acceptance of the system.
 - 5. Discuss software changes requested by the users with the Executive Team.
 - 6. Create requirements and mockups for, and test, system fixes and enhancements.
 - 7. Maintain the online Bay Area NRC Communication Center (feedback tool).
 - 8. Work collaboratively with the CINHC Content Coordinator.
 - 9. Report to the FCCC Program Director.

- f. **Operating Committee:** This is a group of clinical agency and nursing school leaders who serve as project stakeholders and system testers. The Operating Committee provides input to system development and ensures that the end product will meet the needs of other community agencies and schools of nursing. The Operating Committee convenes as needed to discuss project development and provide input. It also receives communications from the Content Coordinator regarding project status.

X. Sustainability

The CCPS operational budget will be available for review to all paying members of the CCPS. User fees will be established and approved by the Operating Committee.

XI. Quality Assurance Measures

- a. **Continuous quality improvement:** In order to maintain the integrity and continuously improve the quality of the CCPS, the system administrators will focus on a certain facet of the system each quarter. Spot-checks will

be run to identify inconsistencies or errors. These inconsistencies or errors will be logged in the feedback tool (described in Section VIII.).

- b. **Updates:** Version updates will be necessary to improve and expand the CCPS. There will be a feedback tool available for users to report problems directly to the Customer Support Desk. In addition, the Online Coordinator will conduct market research and look for possible improvement opportunities, and log recommendations in the feedback tool. Design recommendations will be batched and reviewed on a scheduled basis. Version updates will be scheduled, implemented and rolled out as appropriate.